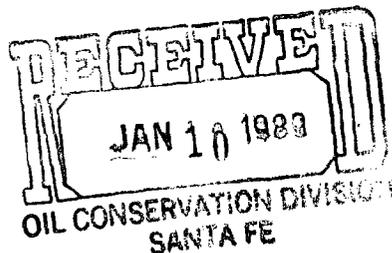


**ENSERCH  
EXPLORATION INC**

ClayDesta National Bank Bldg.  
Suite 5250  
6 Desta Drive  
Midland, Texas 79705  
915-682-9756

Leonard Kersh  
District Production Manager  
Dane Hendley  
District Petroleum Engineer  
Sammy Reed  
Production Superintendent  
West Texas District  
Production Division

January 5, 1989



New Mexico Department of  
Energy & Minerals  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501-2088

Re: Application for Downhole Commingling  
Enserch Exploration, Inc.  
N.M. (55) Federal No. 1  
Vada (Penn) Pool  
Prairie, S. (Wolfcamp) Pool  
Roosevelt County, New Mexico

Gentlemen:

Enserch Exploration, Inc., managing general partner of EP Operating Co. requests authority for downhole commingling of production from the Vada (Penn) Pool and the Prairie, S. (Wolfcamp) Pool in the above referenced well located in Roosevelt County, New Mexico.

In accordance with Rule 303-A of the Oil Conservation Division Rules and Regulations, information necessary upon application of a permit for downhole commingling of two oil zones is hereby submitted.

Sincerely,

  
Wm. Dane Hendley

TDB/bd

Attachments

cc: New Mexico Department of  
Energy & Minerals  
Oil Conservation Division  
P. O. Box 1980  
Hobbs, New Mexico 88241-1980

U.S. Department of the Interior  
Bureau of Land Management  
P. O. Box 1397  
Roswell, New Mexico 88201-1397

Managing General Partner of EP Operating Company, a limited partnership

1. Operator: EP Operating Company  
ClayDesta National Bank Bldg.  
Suite 5250  
6 Desta Drive  
Midland, Texas 79705
  
2. Lease Name: N.M. (55) Federal  
Well Number: 1  
Well Location: Unit Letter - F  
Section 27, T-8-S, R-36-E  
1980' FNL, 1980' FWL  
Roosevelt County, New Mexico  
Polls to be Commingled: Vada (Penn) Pool  
Prairie, S. (Wolfcamp) Pool
  
3. Plat Attached
  
4. Form C-116 is attached for the Prairie, S. (Wolfcamp) Pool.

Prior to abandonment, the Vada (Penn) Pool completion was producing 3 STB of oil, 40 MCF of gas, and 5 barrels of water per day.

5. Production decline curves for each pool are attached. Following is a brief synopsis of the well history:

The N.M. (55) Federal No. 1 was originally drilled by Lone Star Producing Company in early 1970 to a total depth of 9820 feet. Drilled as a development well in the Vada (Penn) Field, the well was completed through perforations in the 5½ inch casing from 9745 to 9763 feet. Following stimulation with 750 gallons of 15% HCl acid, a hydraulic casing pump was installed due to the high fluid volume and the well potentialized pumping on February 21, 1970 for 273 STB of oil + 386 MCF of gas + 514 barrels of water per day. The hydraulic casing pump operated efficiently for the first twelve months with the well producing 68,333 STB of oil and 65,653 barrels of water; however, during that first year the GOR continually increased with fluid volume decreasing and the hydraulic casing pump failed. At that time, the casing pump was pulled and, due to the high GOR, the well flowed for approximately 1½ years before dying. The well was then placed on rod pump and produced continually until July 23, 1988 with cumulative production of 164,986 STB oil and 849,717 MCF of gas. At that time, the Penn completion was producing 3 STB of oil and 40 MCF of gas per day and was uneconomical; consequently, the decision was made to test the Wolfcamp formation. A cast iron bridge plug (ClBP) was set at 9651 feet and the Wolfcamp formation perforated from 9040 to 9092 feet. Following stimulation with 12,000 gallons of 15% HCl acid, the Wolfcamp completion potentialized pumping on August 7, 1988 for 8 STB of oil, 35 barrels of water, and 50 MCF of gas per day. Currently, the Wolfcamp completion produces 7 STB of oil, 60 barrels of water, and 13 MCF of gas per day.

6. Bottomhole pressure for the Wolfcamp formation is estimated to be 3300 psig based on a drill stem test conducted in the offset N.M. (55) Federal No. 2 well. Bottomhole pressure for the Penn formation is estimated to be 3000 psig. Both zones require artificial lift.
7. Wolfcamp Oil - 47.1°API  
Penn Oil - 47.1°API
8. Estimated production from the Penn formation: 3 BOPD  
Estimated production from the Wolfcamp formation: 7 BOPD  
Sum of Individual Flow Streams: 10 BOPD

According to Order No. R-6882 dated February 1, 1982, commingled production from zones with the lowermost pool existing between 9000' and 9999' may not exceed 70 BOPD.

9. Penn production - 3 BOPD 40 MCFPD  
Wolfcamp production - 7 BOPD 13 MCFPD  
10 BOPD + 53 MCFPD

Oil production - 30% Penn & 70% Wolfcamp  
Gas production - 75% Penn & 25% Wolfcamp

10. All offset operators have been notified and waiver letters are attached.

**Acreage Dedication Plat**  
**EP Operating Company**  
**N.M. (55) Federal No. 1**  
**Vada (Penn) Field**  
**Prairie, S. (Wolfcamp) Field**  
**Roosevelt County, New Mexico**

Lila Wright, etal  
 Rep. Nat'l.  
 Bnk. Dallas,  
 Tr. 1/2 M.I.  
 J.C. Maxwell  
 Minnie Bow

C.C. Grynberg  
 11.1.95  
 63771

I.M.C. Co  
 R.N.Ains

Liber  
 8.1  
 532

Le Moy Ener.  
 Celsius Fed.  
 TDSIOS  
 O/A12.2.82

S.P. Yates  
 HBP  
 060521

55979

Judy  
 Jones  
 11.1.91  
 145161

I.M.C. Corp. etal  
 U.S. Mary Hays(S)

U.S.  
 Insworth, (S)

U.S.  
 R.N. Ainsworth, (S)

A.R. Co.  
 HBP  
 3875

Liberty Pet.  
 8.1.92  
 53251

S.P. Yates  
 HBP  
 060521  
 Roswell-LaSalle

G.D. Williamson  
 1.11.88

Yates  
 9.1.87  
 30895

Oxy Cities Serv. NGL Inc. (S)

H Beebe, etal

Gos Prod  
 Ent.  
 E 8875

Coastal  
 States

(Skelly)  
 TD 9705  
 O/A 10.29.62  
 (Max Pray)

Celsius Ener.  
 8.1.88  
 55160  
 791  
 KGS

A.R. Co. Coastal Sys  
 HBP  
 E 8875  
 SA Disc.  
 State Plg 1.4.63

F 440

Thomas S. Massey, etal

For Oil, etal 1/4 M.I.  
 Lignum Oil 3/4  
 F. T. Fleet Inc.

U.S.

C.E. Boyd III  
 7.1.87  
 53386  
 256.29

Breck Oper.  
 (BBI Ltd. 1/2)  
 058677  
 "A"

Breck Oper  
 Bate-Fed.

American  
 Petrofina  
 Fed  
 MWJ  
 5.1.91  
 65984  
 38.5  
 KGS

EP Oper.  
 HBP  
 0328425

et. KGS C.R. Read  
 Bates-Fed  
 TD 9734

22 BRECK OPERATING CO.  
 P.O. Box 911  
 BRECKENRIDGE, TX. 76024

American  
 Petrofina  
 Fed.  
 MWS PRODUCING  
 400 W. ILLINOIS  
 SUITE 1100  
 MIDLAND, TX 79701  
 U.S.  
 D.W. Davis, (S)

Celsius  
 Ener.  
 3.1.88  
 55161  
 791  
 KGS

21 Yates  
 Pet.  
 76.98  
 I.D.B.  
 Baxter  
 Cit. Serv.  
 Fed.  
 2958  
 U.S.

Solar  
 Louise-Fed.  
 TD 9735

**"Dedicated Acreage"**

**"Bate-Fed"**  
 U.S.

U.S.  
 K.G. Flott

Yates Pet.  
 EP Oper.  
 3.81.2.28.93  
 HBP  
 9093  
 105 S. 4TH  
 ARTESIA, NM  
 88210  
 KGS  
 FINA OIL & CHEM.  
 mer. PETROJ HBP  
 O.I.E #6 DESTA  
 51845 P392 DE. STR. 5200  
 D.D. Dudley's/R  
 (Amer. Petroj)  
 HBP  
 U.S. 058677

EP Oper.  
 ML 455  
 0328425

2 III Tom Boyd  
 F330. (w.o.) 2.1.73  
 10348589  
 (C.B. Read)  
 (Stone-Fed)  
 9720

MWJ  
 12.1.88  
 57708  
 22.5  
 KGS  
 Tom Brown  
 Aztec-Fed.

H.C. Walker  
 6.25.85  
 6.23.85  
 B.N.Ainsworth  
 Sabine  
 7.27.88  
 8.3.88

28  
 FINA OIL & CHEM.  
 mer. PETROJ HBP  
 O.I.E #6 DESTA  
 51845 P392 DE. STR. 5200  
 D.D. Dudley's/R  
 (Amer. Petroj)  
 HBP  
 U.S. 058677

EP Oper.  
 (C.B. Read)  
 0272981

MWJ  
 5.1.91  
 65985  
 38.5  
 KGS

"N.M. (54) Fed."  
 U.S. K.G. Flott

"MWJ-Fed"  
 BTA  
 Knox 69/Ltd  
 TD 9815

26 Sabine  
 7.27.88  
 8.3.88  
 9.12.88  
 9.26.88

U.S. J.C. Ainsworth 1/4  
 G. Beebe 1/4  
 K.G. Flott H.M. Ray 1/2

R.R. Morrison  
 Fed  
 P339

C.C. Kennedy  
 6.1.88  
 56273  
 144

Skelly, etal  
 HBP  
 03431

(Lillie Yates)  
 03283

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator		Pool				Country													
EP Operating Company		Prairie, S. (Wolfcamp) Field				Roosevelt													
Address		LEASE NAME		WELL NO.		LOCATION		DATE OF TEST		TYPE OF TEST - (X)		Completion		Special					
6 Desta Dr., Suite 5250, Midland, Texas 79705		N.M. (55) Federal		1		F 27 8S 36E		12/16/88		P		8		24		60 47.1 7 13		1625/1	

No well will be assigned an allowable greater than the amount of oil produced on the official test.  
 During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.  
 Gas volumes must be reported in MCF measured at a pressure base of 15,025 psia and a temperature of 60° F. Specific gravity base will be 0.60.  
 Report casing pressure in lieu of tubing pressure for any well producing through casing.  
 Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

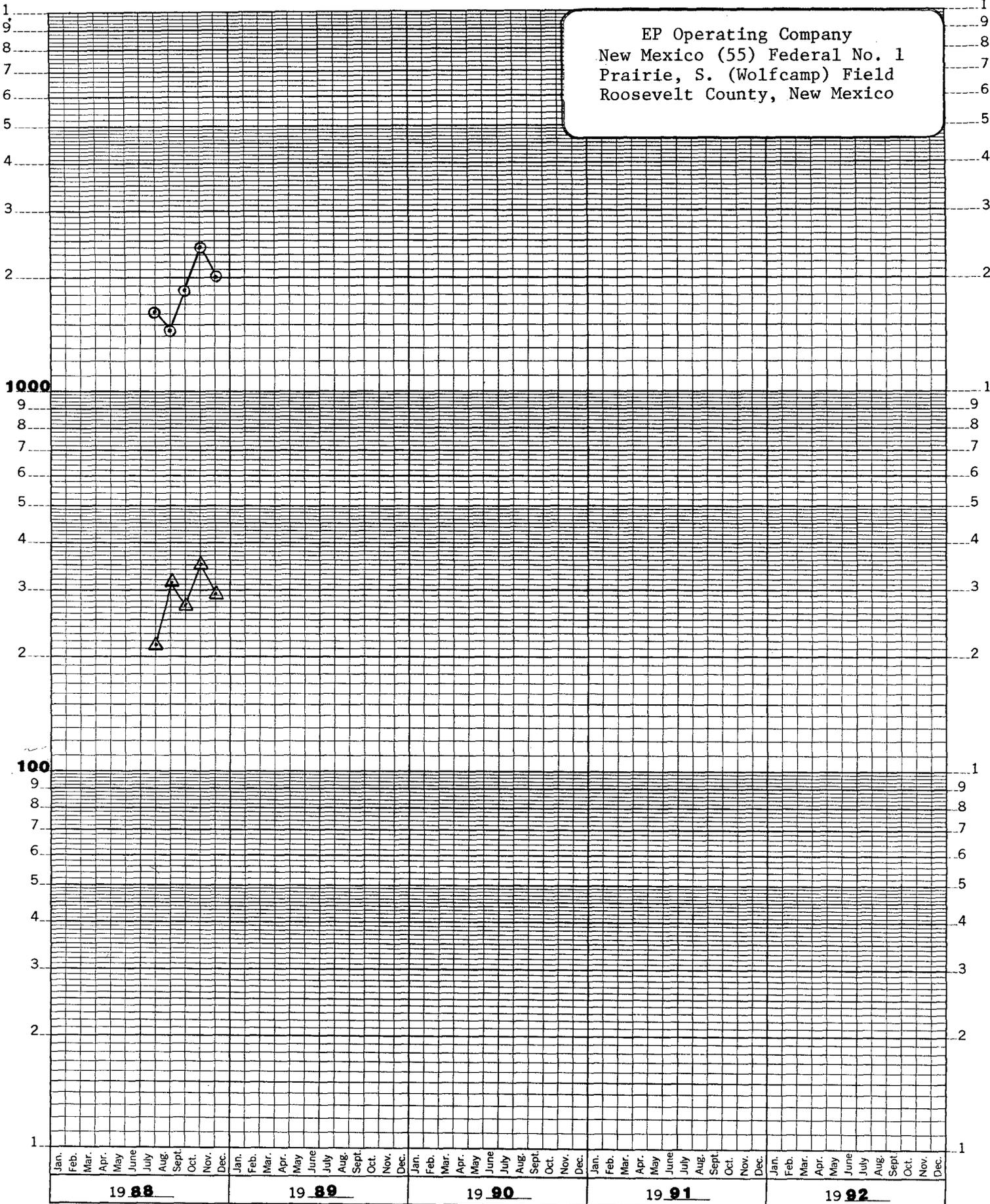
I hereby certify that the above information is true and complete to the best of my knowledge and belief.

*Mr. Gene Landley*  
 (Signature)  
 District Petroleum Engineer  
 January 4, 1989  
 (Date)

46 6690

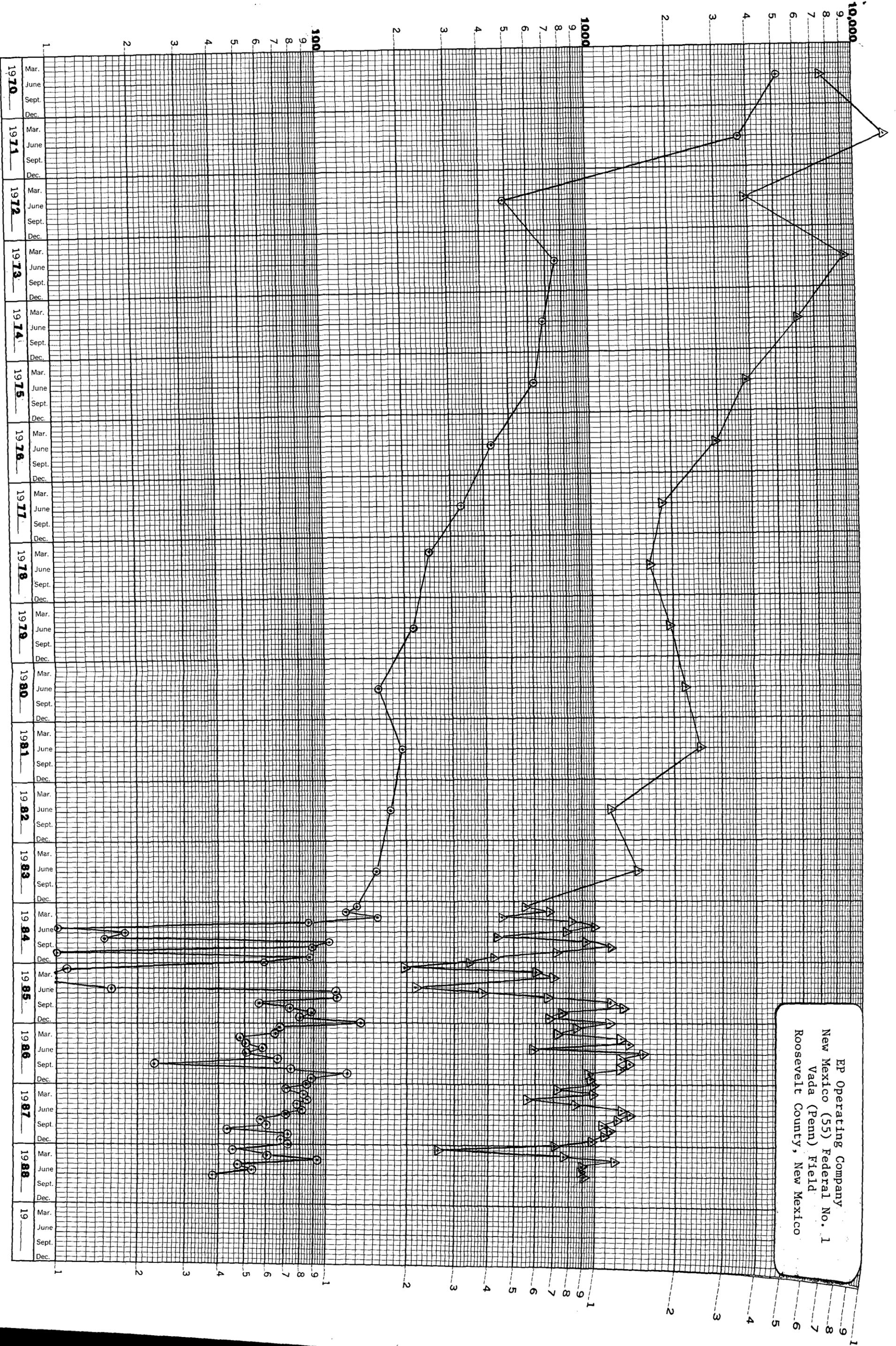
KE 5 YEARS BY MONTHS x 3 LOG CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.

EP Operating Company  
New Mexico (55) Federal No. 1  
Prairie, S. (Wolfcamp) Field  
Roosevelt County, New Mexico



○ Monthly Oil Production (STBO)

△ Monthly Gas Production (MCF)



EP Operating Company  
New Mexico (55) Federal No. 1  
Vada (Penn) Field  
Roosevelt County, New Mexico

○ Monthly Oil Production (STBO)  
△ Monthly Gas Production (MCF)

**ENSERCH  
EXPLORATION INC.**

ClayDesta National Bank Bldg.  
Suite 5250  
6 Desta Drive  
Midland, Texas 79705  
915-682-9756

Leonard Kersh  
District Production Manager  
Dane Hendley  
District Petroleum Engineer  
Sammy Reed  
Production Superintendent  
West Texas District  
Production Division

September 15, 1988

MWJ Producing Company  
400 W. Illinois  
Suite 1100  
Midland, Texas 79701

Re: Exception to New Mexico Rule 303-A  
Downhole Commingling  
EP Operating Company  
N.M. (55) Federal No. 1  
Prairie, S. (Wolfcamp) Field  
Vada (Penn) Field  
Roosevelt County, New Mexico

Gentlemen:

EP Operating Company proposes to commingle downhole within the wellbore of the N.M. (55) Federal Well No. 1 production from the Prairie, S. (Wolfcamp) Field and the Vada (Penn) Field. If, as an offset lease owner, you have no objection to the granting of this exception provided for under the provisions of New Mexico Rule 303-C and hereby waive objection and notice of hearing on this application, please execute two (2) copies of this waiver and return them to the above address.

Please advise if there are questions or additional information is required for this purpose.

Sincerely,

  
Leonard Kersh

TB/jd

Attachment

Name: Edward H. Judson  
Edward H. Judson  
Title: Vice President/Treasurer & Assistant Secretary

Date: 9/21/88

Managing General Partner of EP Operating Company, a limited partnership

**RECEIVED**

NOV 17 1988

**ENSERCH  
EXPLORATION INC.**

ClayDesta National Bank Bldg.  
Suite 5250  
6 Desta Drive  
Midland, Texas 79705  
915-682-9756

**Midland Production**

Leonard Kersh  
District Production Manager  
Dane Hendley  
District Petroleum Engineer  
Sammy Reed  
Production Superintendent  
West Texas District  
Production Division

September 15, 1988

Fina Oil & Chemical Company  
#6 Desta Dr., Suite 3200  
Midland, Texas 79705

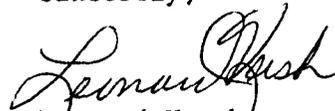
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Downhole Commingling  
EP Operating Company  
N.M. (55) Federal No. 1  
Prairie, S. (Wolfcamp) Field  
Vada (Penn) Field  
Roosevelt County, New Mexico

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Please advise if there are questions or additional information is required for this purpose.

Sincerely,

  
Leonard Kersh

TB/jd

Attachment Fina Oil and Chemical Company

Name: Ronald E. Smelley

Title: District Production Manager

Date: 11-15-88

Managing General Partner of EP Operating Company, a limited partnership

**ENSERCH  
EXPLORATION** INC

ClayDesta National Bank Bldg.  
Suite 5250  
6 Desta Drive  
Midland, Texas 79705  
915-682-9756

Leonard Kersh  
District Production Manager  
Dane Hendley  
District Petroleum Engineer  
Sammy Reed  
Production Superintendent  
West Texas District  
Production Division

September 15, 1988

Breck Operating Company  
P. O. Box 911  
Breckenridge, Texas 76024

Re: Exception to New Mexico Rule 303-A  
Downhole Commingling  
EP Operating Company  
N.M. (55) Federal No. 1  
Prairie, S. (Wolfcamp) Field  
Vada (Penn) Field  
Roosevelt County, New Mexico

Gentlemen:

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Please advise if there are questions or additional information is required for this purpose.

Sincerely,

  
Leonard Kersh

TB/jd

Attachment

Name: 

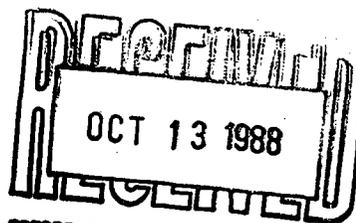
Title: V.P. Prod

Date: 9-20-88

Managing General Partner of EP Operating Company, a limited partnership

**ENSERCH  
EXPLORATION INC**

ClayDesta National Bank Bldg.  
Suite 5250  
6 Desta Drive  
Midland, Texas 79705  
915-682-9756



Leonard Kersh  
District Production Manager  
Dane Hendley  
District Petroleum Engineer  
Sammy Reed  
Production Superintendent  
West Texas District  
Production Division

September 15, 1988

SECOND REQUEST  
DATED 10-11-88

Yates Petroleum  
105 South 4th  
Artesia, New Mexico 88210

Re: Exception to New Mexico Rule 303-A  
Downhole Commingling  
EP Operating Company  
N.M. (55) Federal No. 1  
Prairie, S. (Wolfcamp) Field  
Vada (Penn) Field  
Roosevelt County, New Mexico

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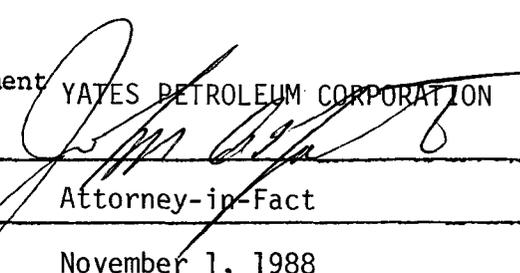
Please advise if there are questions or additional information is required for this purpose.

Sincerely,

Leonard Kersh

TB/jd

Attachment YATES PETROLEUM CORPORATION

Name: 

Title: Attorney-in-Fact

Date: November 1, 1988

Managing General Partner of EP Operating Company, a limited partnership



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
 HOBBS DISTRICT OFFICE

1-9-89

GARREY CARRUTHERS  
 GOVERNOR

POST OFFICE BOX 1980  
 HOBBS, NEW MEXICO 88241-1980  
 (505) 393-6161

OIL CONSERVATION DIVISION  
 P. O. BOX 2088  
 SANTA FE, NEW MEXICO 87501

**RECEIVED**  
 JAN 13 1989  
 OIL CONSERVATION DIVISION  
 SANTA FE

RE: Proposed:

- MC \_\_\_\_\_
- DHC  \_\_\_\_\_
- NSL \_\_\_\_\_
- NSP \_\_\_\_\_
- SWD \_\_\_\_\_
- WFX \_\_\_\_\_
- PMX \_\_\_\_\_

Gentlemen:

I have examined the application for the:

*Ensearch Expl. + Prod Co.* *n.m. 55 Fed #1-F* *27-8-36*  
 Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

*OK*

Yours very truly,

Jerry Sexton  
 Supervisor, District 1

/ed